

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing Of Claims:**

1. - 10. (Canceled)

11. (Previously Presented) A spiral antenna, comprising:  
four approximately parallel electrically conducting spiral arms; and  
a common coplanar conductor to which respective inner spiral arm ends of each of the spiral arms are connected for at least one of supplying and receiving a signal.

12. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the coplanar conductor includes an inner conductor and at least one reference potential surface, and  
the inner conductor and the at least one reference potential surface each are connected to two of the four inner spiral arm ends.

13. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the coplanar conductor is arranged perpendicular to a plane of the spiral antenna.

14. (Previously Presented) The spiral antenna according to claim 11, further comprising:  
different carrier materials, wherein:  
the coplanar conductor is mounted on one of the different carrier materials,  
and  
the spiral arms are mounted on another of the different carrier materials.

15. (Previously Presented) The spiral antenna according to claim 11, further comprising:  
a carrier material, wherein:  
the coplanar conductor and the spiral arms are applied to the carrier material.

16. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the coplanar conductor is formed as a taper at least in part.
17. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the spiral arms are designed in the form of one of an Archimedean spiral  
and a logarithmic spiral.
18. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the coplanar conductor is supplied with a symmetrical electric field  
distribution to yield an omnidirectional transmission characteristic.
19. (Previously Presented) The spiral antenna according to claim 11, wherein:  
the coplanar conductor is supplied with an asymmetrical electric field  
distribution to yield a directional transmission characteristic.
20. (Previously Presented) A motor vehicle, comprising:  
a body; and  
a spiral antenna arranged at a location that is one of in and on the body, wherein the  
spiral antenna includes:  
four approximately parallel electrically conducting spiral arms, and  
a common coplanar conductor to which respective inner spiral arm ends of  
each of the spiral arms are connected for at least one of supplying and receiving a  
signal.
21. (New) The spiral antenna according to claim 16, wherein:  
the taper is a linear taper.
22. (New) The spiral antenna according to claim 16, wherein:  
the taper is a nonlinear taper.
23. (New) The spiral antenna according to claim 22, wherein:  
the nonlinear taper is an exponential taper.

24. (New) The spiral antenna according to claim 11, further comprising:  
a three-way gate connected to the coplanar conductor.
25. (New) The spiral antenna according to claim 24, wherein:  
the three-way gate includes:  
a first gate,  
a second gate, and  
a third gate.
26. (New) The spiral antenna according to claim 24, wherein:  
the three way-gate includes:  
a carrier material,  
a first conductor arranged on the carrier material,  
a second conductor arranged perpendicularly to the first conductor,  
the first conductor and the second conductor being galvanically separated from each other,  
a first reference potential surface, and  
a second reference potential surface, each one of the first conductor and the second conductor being arranged in respective slots in the carrier material in order to insulate the first conductor and the second conductor from the first reference potential surface and the second reference potential surface.
27. (New) The spiral antenna according to claim 26, wherein:  
the first conductor divides the three-way gate into a left half and a right half,  
the first reference potential surface is located exclusively in the left half, and  
the second reference potential surface is located exclusively in the right half.
28. (New) The spiral antenna according to claim 25, wherein:  
the first gate is connected to an end of the coplanar conductor facing away from the spiral arms.

29. (New) The spiral antenna according to claim 26, wherein:

a first gate and a second gate of the three-way gate are formed by the first conductor, the first reference potential surface, and the second reference potential surface, and

a third gate of the three-way gate is formed by the second conductor and the first reference potential surface.

30. (New) The spiral antenna according to claim 26, further comprising:

a first conducting bridge by which the first reference potential surface and the second reference potential surface are connected; and

a second conducting bridge by which the second conductor and the second reference potential surface are connected.